JOURNAL of TOXICOLOGY and ENVIRONMENTAL HEALTH

Volume 47
Number 1
1996

CONTENTS

v EDITORIAL

Invited Review

1 ROLE OF RAT STRAIN IN THE DIFFERENTIAL SENSITIVITY TO PHARMACEUTICAL AGENTS AND NATURALLY OCCURRING SUBSTANCES **S. Kacew and M. F. W. Festing**

Original Contributions

31 HUMAN EXPOSURE TO NATURALLY OCCURRING HYDROQUINONE **Peter J. Deisinger, Tammie S. Hill, and J. Caroline English**

47 EVALUATION OF THE TOXICOLOGICAL RISK TO HUMANS OF CAULERPENYNE USING HUMAN HEMATOPOIETIC PROGENITORS, MELANOCYTES, AND KERATINOCYTES IN CULTURE **D. Parent-Massin, V. Fournier, P. Amade, R. Lemée, M. Durand-Clément, C. Delescluse, and D. Pesando**

61 GENERATION OF REACTIVE OXYGEN SPECIES BY Co(II) FROM H_2O_2 IN THE PRESENCE OF CHELATORS IN RELATION TO DNA DAMAGE AND 2′-DEOXYGUANOSINE HYDROXYLATION **Yan Mao, Ke Jian Liu, Jin Jie Jiang, and Xianglin Shi**

77 LIGHT CATALYTICALLY CRACKED NAPHTHA: SUBCHRONIC TOXICITY OF VAPORS IN RATS AND MICE AND DEVELOPMENTAL TOXICITY SCREEN IN RATS **W. E. Dalbey, M. H. Feuston, J. J. Yang, C. V. Kommineni, and T. A. Roy**

93 CHARACTERISTICS OF THE ACUTE-PHASE PULMONARY RESPONSE TO SILICA IN RATS **Michael DiMatteo, James M. Antonini, Knox Van Dyke, and Mark J. Reasor**

JOURNAL of TOXICOLOGY and ENVIRONMENTAL HEALTH

Volume 47
Number 2
1996

CONTENTS

Original Contributions

109 REPRODUCTIVE EPIDEMIOLOGY IN SULFONAMIDE FACTORY WORKERS **M. Hema Prasad, K. Pushpavathi, G. Sandhya Devi, and P. P. Reddy**

115 EFFECTS OF NEW QUINOLONE ANTIBACTERIAL AGENTS ON MAMMALIAN CHROMOSOMES **Hiroyasu Shimada and Satoru Itoh**

125 INHIBITION OF CATALASE ACTIVITY IN VITRO BY DIESEL EXHAUST PARTICLES **Yoki Mori, Sumika Murakami, Toshiyuki Sagae, Hideyuki Hayashi, Masakatsu Sakata, Masaru Sagai, and Yoshito Kumagai**

135 LOW-LEVEL *m*-XYLENE INHALATION ALTERS PULMONARY AND HEPATIC CYTOCHROME P-450 ACTIVITY IN THE RAT **Jeffrey W.-D. Foy, Diane M. Silverman, and Robert A. Schatz**

145 REACTIONS OF ARSINE WITH HEMOGLOBIN **K. M. Hatlelid, C. Brailsford, and D. E. Carter**

159 DIFFERENCES IN THE NEPHROTOXICITY OF HYDROQUINONE AMONG FISCHER 344 AND SPRAGUE-DAWLEY RATS AND B6C3F_1 MICE **Rodney J. Boatman, J. Caroline English, Louise G. Perry, and Verena E. Bialecki**

173 COMPARATIVE EVALUATION OF CHELATING AGENTS ON THE MOBILIZATION OF CADMIUM: A MECHANISTIC APPROACH **R. C. Srivastava, Sanjay Gupta, Nihal Ahmad, S. K. Hasan, A. Farookh, and M. M. Husain**

183 INTERACTION BETWEEN CADMIUM AND ZINC IN THE PRODUCTION AND SULFATION OF GLYCOSAMINOGLYCANS IN CULTURED BOVINE VASCULAR ENDOTHELIAL CELLS **Susumu Ohkawara, Toshiyuki Kaji, Chika Yamamoto, Yasuyuki Fujiwara, Michiko Sakamoto, and Hiroshi Kozuka**

195 H- AND K-*ras* MUTATIONAL PROFILES IN CHEMICALLY INDUCED LIVER TUMORS FROM B6C3F_1 AND CD-1 MICE **Mugimane G. Manjanatha, Eddie E. Li, Peter P. Fu, and Robert H. Heflich**

JOURNAL of TOXICOLOGY and ENVIRONMENTAL HEALTH

Volume 47
Number 3
1996

CONTENTS

Original Contributions

209 PHARMACOKINETICS OF TCDD IN VETERANS OF OPERATION RANCH HAND: 10-YEAR FOLLOW-UP **Joel E. Michalek, James L. Pirkle, Samuel P. Caudill, Ram C. Tripathi, Donald G. Patterson, Jr., and Larry L. Needham**

221 IS PHOSPHOLIPASE IN VINEGARED OYSTERS A CAUSAL AGENT FOR HUMAN POISONING? **Junko Sajiki**

233 DEVELOPMENTAL EFFECTS OF TRICHLOROACETONITRILE ADMINISTERED IN CORN OIL TO PREGNANT LONG-EVANS RATS **Suzanne A. Christ, Eleanor J. Read, Judy A. Stober, and M. Kate Smith**

249 DEVELOPMENTAL TOXICITY OF SARIN IN RATS AND RABBITS **James B. LaBorde, Hudson K. Bates, Jack C. Dacre, and John F. Young**

267 COMPARATIVE STUDIES ON THE TOXICITY OF MERCURY, CADMIUM, AND COPPER TOWARD THE ISOLATED PERFUSED RAT LIVER **O. Strubelt, J. Kremer, A. Tilse, J. Keogh, R. Pentz, and M. Younes**

285 URINARY PROTEIN EXCRETION OF SEMIDOMESTICATED MINK IN A CHRONIC METHYLMERCURY STUDY **G. Chamberland, D. Bélanger, A. Dallaire, J. S. Blais, L. Vermette, and N. Larivière**

299 INACTIVATION OF GLUTARALDEHYDE BY REACTION WITH SODIUM BISULFITE **Susan L. P. Jordan, Michael R. Russo, Ron L. Blessing, and Alan B. Theis**

JOURNAL of TOXICOLOGY and ENVIRONMENTAL HEALTH

Volume 47
Number 4
1996

CONTENTS

Original Contributions

311 LEAD IN HUMAN BLOOD FROM CHILDREN LIVING IN CAMPANIA, ITALY **Renata Amodio-Cocchieri, Antonio Arnese, Emilia Prospero, Attilio Roncioni, Luigi Baruffo, Rita Ullucci, and Vincenzo Romano**

321 SUBCHRONIC TOXICITY EVALUATION OF LEWISITE IN RATS **L. B. Sasser, J. A. Cushing, P. W. Mellick, D. R. Kalkwarf, and J. C. Dacre**

335 PERCUTANEOUS ABSORPTION OF 2,4-DICHLOROPHENOXYACETIC ACID FROM SOIL WITH RESPECT TO SOIL LOAD AND SKIN CONTACT TIME: IN VIVO ABSORPTION IN RHESUS MONKEY AND IN VITRO ABSORPTION IN HUMAN SKIN **Ronald C. Wester, Joseph Melendres, Frederick Logan, Xiaoying Hui, Howard I. Maibach, Michael Wade, and Kim-Chi Huang**

345 SCHEDULE-CONTROLLED OPERANT BEHAVIOR OF RATS FOLLOWING ORAL ADMINISTRATION OF PERCHLOROETHYLENE: TIME COURSE AND RELATIONSHIP TO BLOOD AND BRAIN SOLVENT LEVELS **D. Alan Warren, Thomas G. Reigle, Srinivasa Muralidhara, and Cham E. Dallas**

363 ELIMINATION OF POLYCHLORINATED DIBENZO-*p*-DIOXINS AND DIBENZOFURANS IN OCCUPATIONALLY EXPOSED PERSONS **D. Flesch-Janys, H. Becher, P. Gurn, D. Jung, J. Konietzko, A. Manz, and O. Päpke**

379 RELATIONSHIP BETWEEN CYP1A ENZYME ACTIVITIES AND PROTEIN LEVELS IN RATS TREATED WITH 2,3,7,8-TETRACHLORODIBENZO-*p*-DIOXIN **Michael J. DeVito, Lisa E. Beebe, Margaret Menache, and Linda S. Birnbaum**

395 CHLORPYRIFOS OXON INTERACTS WITH THE MAMMALIAN MULTIDRUG RESISTANCE PROTEIN, P-GLYCOPROTEIN **Christine L. Lanning, Robert L. Fine, Clifford W. Sachs, U. S. Rao, James J. Corcoran, and Mohamed B. Abou-Donia**

JOURNAL of TOXICOLOGY and ENVIRONMENTAL HEALTH

Volume 47
Number 5
1996

CONTENTS

v ACKNOWLEDGMENT

Original Contributions

409 EVALUATION OF THREE METHODS FOR THE DETECTION OF DNA SINGLE-STRAND BREAKS IN HUMAN LYMPHOCYTES: ALKALINE ELUTION, NICK TRANSLATION, AND SINGLE-CELL GEL ELECTROPHORESIS **T. Leroy, P. Van Hummelen, D. Anard, P. Castelain, M. Kirsch-Volders, R. Lauwerys, and D. Lison**

423 FLOW CYTOMETRIC AND HISTOLOGICAL ASSESSMENT OF 1,2:3,4-DIEPOXY-BUTANE TOXICITY ON MOUSE SPERMATOGENESIS **Marcello Spanò, Cecilia Bartoleschi, Eugenia Cordelli, Giorgio Leter, Lia Segre, Alberto Mantovani, Paola Fazzi, and Francesca Pacchierotti**

443 MUTAGENIC POTENTIAL OF BINARY AND COMPLEX MIXTURES USING DIFFERENT ENZYME INDUCTION SYSTEMS **K. V. Markiewicz, L. E. Howie, S. H. Safe, and K. C. Donnelly**

453 DISPOSITION, METABOLISM, AND TOXICITY OF METHYL TERTIARY BUTYL ETHER, AN OXYGENATE FOR REFORMULATED GASOLINE **Duncan E. Hutcheon, John D. Arnold, Willem ten Hove, and Joseph Boyle III**

465 DISTINCTIVE PROFILE OF ALVEOLAR MACROPHAGE-DERIVED CYTOKINE RELEASE INDUCED BY FIBROGENIC AND NONFIBROGENIC MINERAL DUSTS **Irma Lemaire and Sophie Ouellet**

479 ROLE OF DECOMPOSITION PRODUCTS IN SODIUM METHYLDITHIOCARBAMATE-INDUCED IMMUNOTOXICITY **Deborah E. Keil, Eric L. Padgett, Donna B. Barnes, and Stephen B. Pruett**

493 EFFECTS OF CARBAMATE INSECTICIDES IN A RAT MEDIUM-TERM BIOASSAY FOR HEPATOCARCINOGENS **Hikaru Tanaka, Ryohei Hasegawa, Yasuko Takesada, Tadashi Ogiso, Masao Hirose, and Tomoyuki Shirai**

499 SUBCHRONIC TOXICITY STUDY OF L-ISOLEUCINE IN F344 RATS **Mayumi Kawabe, Yasuko Takesada, Seiko Tamano, Akihiro Hagiwara, Nobuyuki Ito, and Tomoyuki Shirai**

JOURNAL of TOXICOLOGY and ENVIRONMENTAL HEALTH

Volume 47
Number 6
1996

CONTENTS

Original Contributions

509 EXOGENOUS CATALASE MAY POTENTIATE OXIDANT-MEDIATED LUNG INJURY IN THE FEMALE SPRAGUE-DAWLEY RAT **C. Lardot, F. Broeckaert, D. Lison, J. P. Buchet, and R. Lauwerys**

523 EXPOSURE TO ENVIRONMENTAL TOBACCO SMOKE RESULTS IN AN INCREASED PRODUCTION OF (+)-*anti*-BENZO[a]PYRENE-7,8-DIHYDRODIOL-9,10-EPOXIDE IN JUVENILE FERRET LUNG HOMOGENATES **Ram K. Sindhu, Ronald E. Rasmussen, and Yutaka Kikkawa**

535 EFFECT OF RADON ON THE IMMUNE SYSTEM: ALTERATIONS IN THE CELLULARITY AND FUNCTIONS OF T CELLS IN LYMPHOID ORGANS OF MOUSE **Mitzi Nagarkatti, Prakash S. Nagarkatti, and Antone Brooks**

553 CHARACTERIZATION OF 4-AMINOBIPHENYL–HEMOGLOBIN ADDUCTS IN MATERNAL AND FETAL BLOOD SAMPLES **Steven R. Myers, Joseph A. Spinnato, Maria T. Pinorini-Godly, Curtis Cook, Brent Boles, and George C. Rodgers**

567 RAT STRAIN- AND GENDER-RELATED DIFFERENCES IN NEUROBEHAVIORAL SCREENING: ACUTE TRIMETHYLTIN NEUROTOXICITY **Virginia C. Moser**

587 FUNGAL METABOLISM OF 2-NITROFLUORENE **Jairaj V. Pothuluri, Frederick E. Evans, Thomas M. Heinze, Peter P. Fu, and Carl E. Cerniglia**

601 ACUTE-PHASE RESPONSE IN RAT TO CARBON TETRACHLORIDE–AZATHIOPRINE INDUCED CIRRHOSIS AND PARTIAL HEPATECTOMY OF CIRRHOTIC LIVER **Fouad Mounir Fouad, Orval Albert Mamer, and Fereidoon Shahidi**

FOLLOWING PAGE 616:

TITLE PAGE TO VOLUME 47

CONTENTS OF VOLUME 47

AUTHOR INDEX TO VOLUME 47

SUBJECT INDEX TO VOLUME 47